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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,666	01/16/2002	John C. Hardwick	03397-036001	1168

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EXAMINER	
HARPER, V PAUL	
ART UNIT	**PAPER NUMBER**
2626	

MAIL DATE	DELIVERY MODE
01/31/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/046,666	**Applicant(s)** HARDWICK, JOHN C.	
	Examiner V. Paul Harper	**Art Unit** 2626	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 09 May 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: _____.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached sheet..
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

V. PAUL HARPER
PRIMARY PATENT EXAMINER

V. Paul Harper

Response to Arguments

1. The examiner notes that the request for consideration filed by the applicant on 5/09/2007 was not properly consider by the Office. This is a response to that submission. Refunds for the fees paid subsequent to 5/09/2007 may be appropriate.

A. Section 101 Rejection

Claims 1-77 are rejected under 35 U.S.C. 101 because the claimed invention is drawn to non-statutory subjected. These claims are drawn to an algorithm, per se, or program performing such or a medium resulting from such. In this case, the claims merely recite the step of "combining the first signal samples with the second signal samples to produce a set of digital speech samples corresponding to the selected voicing state" without any practical application being recited.

B. Section 103 Rejection

2. Applicant asserts on page 5:

> ***The Examiner responds to this argument by noting that (1) the passage describes the generation of voicing information using regenerated spectral phase information and (2) Barnwell is included to support the use of pulse locations.*** *As to the Examiner 's first point, while applicant agrees that the passage describes the generation of voicing information, such generation of voicing information does not involve computing first and second filters and has nothing to do with the passage's statement that unvoiced frequency band components may be generated from a filter response to a random noise signal. As to the Examiner's second point, Barnwell is addressed below.*

Figure 2 shows two computational blocks (filters) where fundamental frequency and voicing information is used in the "voiced synthesis" block to generate synthetic speech.

3. Applicant asserts on page 7:

> ***The Examiner responds to this argument by stating that (1) Griffin teaches the generation of synthetic speech with the input of fundamental frequency and spectral (coefficient information where a filter is defined by the coefficients used to program it (Fig. 2), (2) that, since each frame corresponds to spectral information, sequential frames will define sequential filters (hence a first and second filter), and (3) that Barnwell further clarifies the connection between pulse locations (and fundamental frequency) and the excitation of a digital filter****. As to the Examiner 's first point, and as discussed above, Griffin does not describe the use of a filter in the manner argued by the Examiner. As to the Examiner's second and third points, under the Examiner's own logic, if sequential frames could be said to have different filters as a result of their having different spectral information, they would also have different pulse locations as a result of having different fundamental frequencies, such that the different filters would not be used in conjunction with the same pulse locations to produces sets of first and second digital samples.*

See previous argument. Barnwell illustrates how a digital filter can be defined by filter parameters and driven by pitch period estimates (Fig. 1.2) where each sequential set of parameters necessarily defines a new filter. Regarding the Applicants last statement "... *under the Examiner's own logic, if sequential frames could be said to have different filters as a result of their having different spectral information, they would also have different pulse locations as a result of having different fundamental frequencies, such that the different filters would not be used in conjunction with the same pulse locations to produces sets of first and second digital samples*", the

examiner notes that this same argument applies to the Applicant's invention. Claim 1 has the limitation "determining a set of pulse locations" where "the pulses locations" are used by the first and the second set of digital samples.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Barnwell illustrates a well-known technique for synthesizing speech.

Furthermore, "[T]he test [for obviousness] is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller,* 642 F.2d 413, 425 (CCPA 1981). "The combination of familiar elements according to know methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc.,* 127 s. Ct. 1727, 1739 (2007); *id.* at 1739-40 ("if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar device in the same way, using the technique is obvious unless its actual application is beyond his or her skill"). In this case, the inputting pitch periods (pulse locations) and parameters into a digital filter can be used to produce synthesized speech.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is (571) 272-7605. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

1/23/2007

VPH

V. PAUL HARPER
PRIMARY PATENT EXAMINER